

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 2031 Elliot

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Stanislaus River	Left	7.07	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start		Rating **	A	Issue No.	5
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training			°	°
				°	°
DWR ID	DWR_RD2031_01_s_2013_5				
Action/Comments					
Inspector Comments: LMA has a flood response plan.					

No Photos

LM Start		Rating **	A	Issue No.	6
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_RD2031_01_s_2013_6				
Action/Comments					
Inspector Comments: Supplies available on-site.					

No Photos

LM Start		Rating **	A	Issue No.	12
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_RD2031_01_s_2013_12				
Action/Comments					
Inspector Comments: O&M Manual available at the office.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 Stanislaus River	Left	7.07	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	0.47	Rating **	M	Issue No.	1
LM End	0.50	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.704740 °	37.704740 °
				-121.159140 °	-121.159140 °
DWR ID					

Action/Comments

Inspector Comments: 07/31/2014: No significant change observed.
 09/10/2013: No significant change observed.
 07/18/2012: No significant change observed.
 08/18/2011: No significant change observed on site. Debris that blocks the irrigation outlet is visible.
 10/19/2010: No significant change observed on site. Sloughing of the bank is occurring adjacent to an irrigation outlet structure. There is moderate to heavy vegetation along the bank that is well established. Broken chunks and slabs of concrete are used as rip rap and line the outside of the irrigation outlet structure. However, much of the rip rap along the slope is sloughing and could possibly lead to future slope instability.
 08/05/2010: Recommended as a local maintenance issue, per CLRO.
 08/20/2009: No major change observed since last visit; 1 inch fissure cracks developing on the slope; rip rap is showing signs of sloughing; recommend as local maintenance issue; site was previously rated "U".
 2008: No change from previous year; irrigation outlet located on site; rip rap placed on river bank.
 09/06/2007: Near agricultural diversion; only 3' landside height differential. [2014 Site ID:RD2031U01RM0.48]

Photo 1 of 1 : SJR2014_RD2031U01RM0.48_1.jpg



Looking down at the site. The irrigation outlet is operating. Debris is visible at the outlet.

LM Start	0.52	Rating **	M	Issue No.	2
LM End	0.52	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.704050 °	37.704050 °
				-121.159578 °	-121.159578 °
DWR ID	DWR RD2031 01 s 2012 2				

Action/Comments

Remove the wild growth other than native grasses from the levee slopes.

Photo 1 of 2 : FA_2014_RD2031_307_2_20141001_00002.jpg



View of vegetation on waterside slope. Facing upstream.

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+ Issue Type

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Stanislaus River	Left	7.07	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	1.63	Rating **	U	Issue No.	52
LM End	1.63	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.698334 °	37.698334 °
				-121.175176 °	-121.175176 °
DWR ID	DWR_RD2031_01_f_2013_52				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

Photo 1 of 1 : FA_2014_RD2031_307_52_20141104_00059.jpg



View of the multiple large rodent hole in the waterside levee slope.

LM Start	1.65	Rating **	M	Issue No.	9
LM End	1.65	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.698208 °	37.698208 °
				-121.175400 °	-121.175400 °
DWR ID	DWR_RD2031_01_s_2012_9				
Action/Comments					
Note and monitor erosion site. Inspector Comments: Active erosion around irrigation inlet in levee prism.					

Photo 1 of 1 : FA_2014_RD2031_307_9_20141001_00011.jpg



10/26/2011 Active erosion into levee prism around irrigation inlet.

LM Start	2.02	Rating **	M	Issue No.	38
LM End	2.09	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.693720 °	37.692782 °
				-121.177527 °	-121.177642 °
DWR ID	DWR_RD2031_01_s_2012_38				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

No Photos

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Stanislaus River	Left	7.07	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	2.44	Rating **	C	Issue No.	43
LM End	2.44	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.688388 °	37.688388 °
				-121.180135 °	-121.180135 °
DWR ID	DWR_RD2031_01_f_2012_43				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. Inspector Comments: Large rodent holes were noted on the landside slope.					

No Photos

LM Start	3.55	Rating **	A/W	Issue No.	24
LM End	3.55	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.690864 °	37.690864 °
				-121.195990 °	-121.195990 °
DWR ID	DWR_RD2031_01_s_2012_24				
Action/Comments					
Pipe					
Inspector Comments: Drain to channel					

No Photos

LM Start	6.21	Rating **	M	Issue No.	19
LM End	6.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.668988 °	37.668302 °
				-121.223514 °	-121.227842 °
DWR ID	DWR_RD2031_01_s_2014_19				
Action/Comments					
Remove the wild growth other than native grasses from the levee slopes.					

No Photos

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Right	5.98	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	3.00	Rating **	M	Issue No.	966
LM End	3.60	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.637626 °	37.638301 °
				-121.207191 °	-121.196465 °
DWR ID	DWR_RD2031_02_s _ 2012_966				
Action/Comments					
Trim trees to at least five feet above ground level. Inspector Comments: Obstructive trees and vegetation along highway are on the landside slope of the levee.					

No Photos

LM Start	4.24	Rating **	C	Issue No.	9
LM End	4.29	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.632761 °	37.632157 °
				-121.190684 °	-121.190242 °
DWR ID	DWR_RD2031_02_s _ 2012_9				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comments: Heavily rodent infested area. Some burrows appear to penetrate the levee from the waterside to the landside.					

No Photos

LM Start	4.25	Rating **	C	Issue No.	23
LM End	4.25	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.632520 °	37.632520 °
				-121.190605 °	-121.190605 °
DWR ID	DWR_RD2031_02_s _ 2013_23				
Action/Comments					
Prunings					
Inspector Comments: Prunings and other debris in the floodway.					

No Photos

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Right	5.98	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	4.33	Rating **	A/W	Issue No.	1
LM End	4.37	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.631716 °	37.631716 °
				-121.189370 °	-121.189370 °
DWR ID					

Action/Comments

Inspector Comments: 7/17/2014: The erosion has slightly expanded toward levee toe at two pocket locations.
09/10/2013: The site has been visited. The erosion has expanded toward levee crest at two pocket locations.
07/18/2012: No significant change observed on the site.
08/18/2011: No significant change observed on the site. Dead trees and animal activities are visible. The closest point of the erosion site to the levee toe is about 100 ft.
10/19/2010: There is active scouring occurring on the bank due to the nature of the flow and the lack of armor protection. There is also a fallen log immediately downstream of where the erosion has occurred and is protruding outward, possibly creating an eddy and scouring the bank. With the remaining 100-foot wide berm, the levee prism is not yet affected. However, the bank will continue to degrade, and eventually intrude into the levee prism if no protection is put in place. Erosion site is recommended for annual assessment and monitoring during flood events. [2014 Site ID:RD2031U02RM78.7]

Photo 1 of 1 : SJR2014_RD2031U02RM78.7_1.jpg



Looking downstream. The erosion has progressed toward levee.

LM Start	4.58	Rating **	A/W	Issue No.	22
LM End	4.58	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			37.630855 °	37.630855 °
				-121.185442 °	-121.185442 °
DWR ID	DWR RD2031 02 f 2012 22				

Action/Comments

Pipe
Inspector Comments: 36" discharge pipe through the levee with flap gate closed.

Photo 1 of 1 : FA_2014_RD2031_308_22_20141001_00012.jpg



View of the closed flap gate on waterside.

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Right	5.98	11/04/2014 11/04/2014	Maksim Khashchuk

LM Start	5.08	Rating **	C	Issue No.	12
LM End	5.08	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.630843 °	37.630843 °
				-121.176329 °	-121.176329 °
DWR ID	DWR_RD2031_02_s_2014_12				
Action/Comments					
Repair slope instability.					

No Photos

LM Start	5.52	Rating **	A	Issue No.	18
LM End	5.52	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Seepage / Sandboils			37.630802 °	37.630802 °
				-121.168439 °	-121.168439 °
DWR ID	DWR_RD2031_02_s_2014_18				
Action/Comments					

Photo 1 of 1 : FA_2014_RD2031_308_18_20141001_00011.jpg



View of the seepage at the landside levee toe.

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